DS 15(L)

TOP SECRET

TICOM/I-200

INTERROGATION OF MIN. RAT. WILHELM FENNER

OF OKW/CHI.

Attached is the report on the interrogation of Min. Rat. Wilhelm FENNER, chief of Gruppe IV and senior cryptanalyst of OKW/Chi, carried out at OBERURSEL by Mr. K.L. Perrin of L.S.I.C. and Lt. Mary C. Lane of A.S.A. Europe, from 17th September to 2nd October, 1946.

TICOM
22nd November, 1946.

No. of pages: 16

Copy No: 9.

Distribution :-

L.S.I.C.

1. T
2. S
3. H and M
4. L
5. Z
6. H.71
7. H.62
8. H.63
9. L.91
10-13. Ticom Files.

U.S.

14. U.S.L.O.
15-18. Op-20-G.
19-22. A.S.A. Washington
23. Director, A.S.A. Europe

} via U.S.L.O.

External.

24. Signals 6, War Office.
25. D.S.D.10., Admiralty.
26. Signals 5, Air Ministry.

TOP SECRET

REPORT ON THE INTERROGATION OF
WILHELM FENNER

First Interrogation: 17.9.46.

1. OKW/Chi liaison with other countries.

Hungary. FENNER said that all material and results were exchanged with the Hungarians, and that an attempt was even made to divide the work between the two departments, but that this had not worked out in practice. He had stated that in urgent cases, messages were passed from Budapest to OKW by telegraph, and we asked him to give specific examples. He explained that when they were reading an important traffic currently and found that they had failed to intercept some messages, they would send a telephonic request to Budapest and any gaps would be filled by telegraph. This happened for instance in the case of the "20 period" Turkish subtractor.
The Hungarians excelled at breaking plain Balkan codes, but never had any success with Greek traffic; on the whole they were not so good as OKW.

Finland. The liaison with Finland was less complete, FENNER had only been in HELSINKI once, and remembered that the head was a woman. They worked on plain English and American codes, Brown and Gray Code, and Strip. They never worked on Italian or Balkan countries. The Finns had a slight liaison with the Hungarians, and had visited PETRIKOVIC; they told FENNER that there was no exchange of material. The Hungarians also had liaison with the Italian bureau, which had been handled by BRCIC, who was second in command at Budapest; here again, however, no material was exchanged.

Japan. At this stage, FENNER admitted only to knowing HAYASHI, who had come to Berlin at the beginning of the war, and had given them the originals of the Brown and Gray Codes; he did not know how they had obtained these books. He said nothing was exchanged with Tokyo, but thought that they might have had liaison with OKH. In 1944, HAYASHI became Military Attache in Budapest.

Italy. GAMBA came to Berlin at the beginning of the war, and asked him to give an opinion of Italian codes; he told the Italians that their codes were too weak. GAMBA gave him a captured Swedish diplomatic codebook, and they exchanged their workings on Rumanian and Jugoslav positions. The Italians were also interested in French Army and Diplomatic, and TRAPPE had given them details of these; he thought that they might also have consulted OKH on this subject.

Later, they had received from Rome a solved American code - he could not remember whether it was Strip or a code recyphered with bigram substitution, but thought that it was the code used by the Military Attache in Cairo. OKW had previously come to the conclusion that this code was unsolvable and had laid it aside. The Italians maintained that they had broken it, but FENNER thought that they must have captured it.

OKW told the Italians that their military codes were very poor, but did not inform them that they were reading them currently.

After the fall of Mussolini, the North Italian bureau turned to OKW and offered their co-operation; JODL, however, forbade any further liaison, and he knew nothing about their later activities. No results were received by OKW from this bureau.

Please turn over

TOP SECRET

Croatia. During the war, they received a visit from a young Croatian officer, and FENNER went to AGRAM to discuss the possibilities of work; nothing came of this, however, since the Croats had no intercept facilities. He did not remember the name of this officer. His visit to AGRAM had been in 1942 or 1943. When he returned, he reported that the idea was completely useless, since the Croats had no army and no money.

Spain. During the war, he received occasional traffic from Madrid, and sometimes traffic of unknown origin with Spanish markings; this came to him from above, and he never knew any details of the organisation involved. During the Spanish Civil War, they had had good contacts with the Spanish bureau.

2. Knowledge of non-Axis Bureaux.

FENNER never had any contact with the Swedish bureau, but thought that they must be efficient, because Swedish codes were very good. Although they had no direct evidence, they always had the feeling that something was happening. The Russians that were captured during the war knew very little and were probably only decypherers; FENNER never interrogated them himself.

They had captured some Poles in Czechoslovakia, known as the WICHER organisation and FRICKE and PIETSCH had gone to interrogate them; they maintained that they had broken the German Enigma, but no concrete results came from the interrogation, and he had no details of their methods; it seemed probable that a number of Enigma messages had been read.

After the fall of Czechoslovakia, FENNER had visited RUZEK, the head of the Czech organisation, who told him that the Czechs had read the German military transposition with dummies, after receiving information on the system from a German informer. FENNER maintained that, without outside information, single transposition with dummies is quite unbreakable. The Czechs had no liaison with the Polish organisation, but their relations with the French were good. He thought they probably read diplomatic traffic as well, but all their papers were destroyed. He had offered RUZEK employment in OKW/Chi, but he had declined.

When France fell, no cryptanalysts were captured, and all their papers were destroyed; he saw a captured French document of unknown source, urging that a new bureau should be set up as soon as possible (but see para 19).

He heard that a German Foreign Office code - probably unreeyphered - was read by the Czechs in Prague.

Late in 1943, a German officer escaped in North Africa, and said that the Americans had a large decyphering organisation with Hollerith machines in North Africa. He knew nothing further about the American and English organisations, but guessed that they were active, because he read in Turkish messages that the English were trying to obtain Turkish code-books. FENNER was asked to enlarge on his written statement that the English chief cryptanalyst was paid more than the Archbishop of Canterbury; his answer was rather vague, but he said that after the first war, NOVOPASCHENNY, who had been head of the Russian bureau, came to London and worked with the British bureau and then returned to Berlin. The British all worked as clerks, but received a huge annual gratuity which made them very rich. At that time they were buying Soviet messages from a spy in Warsaw named ORLOFF for £10 a message.

Asked for his opinion on the ability of various bureaux, FENNER said that the Austrians were very good, especially on Balkan countries, and had a very old tradition behind them. Later the Germans were excellent, and they had the advantage over their enemies that they received many intercepts from cables, whereas the Allies had to depend upon W/T

Please turn over

TOP SECRET

interception. The Finns were good, the Hungarians fair and the Italians very poor. Of anti-Axis countries, he thought that the French were very good; he knew nothing of English and American successes, but, judging by books and reports on their successes in the first war, he felt sure that they were very clever.

SECOND INTERROGATION: 18/9/46.

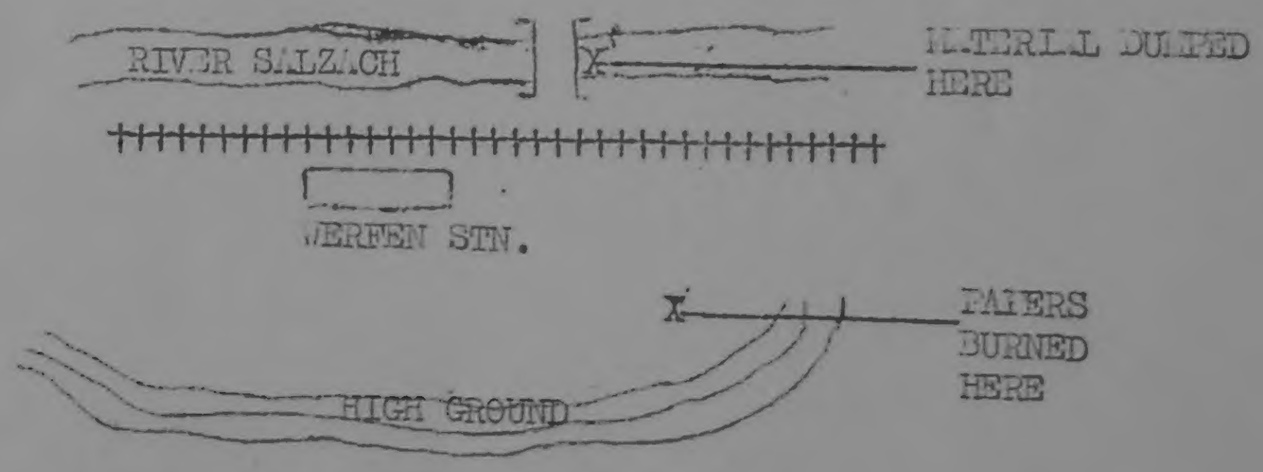
3. Liaison with other German Bureaux.

FENNER stated generally that the different departments were very jealous and that there was very little contact between them; he himself thought this a bad thing, and had persuaded JRAUN to issue an order in 1944 to the effect that all results and effort must be centralised in OKW. In spite of this order, he cannot remember a single instance in which he received a report from another department except the Foreign Office; the liaison was in practice only carried on in the realm of German cyphers. He also tried to organise a group to work on all unsolved problems, regardless of source, but this again came to nothing owing to jealousy.

With the Foreign Office everything was exchanged, but the .... tended to regard everything in the nature of interesting historical documents, whereas OKW looked upon their work from the practical viewpoint. There was a division of labour with the Foreign Office, which failed entirely with all the other bureaux. For example, he had no idea whether OKH were also working on the London-Warsaw traffic; and the results of Military Attache work, which was the province of OKW, never reached OKH except by roundabout channels. He himself worked with PASCHKE and SCHAUFLER; PASCHKE was in charge of Foreign Office liaison with other departments. Asked about LANGLOTZ, he knew nothing of his whereabouts, nor whether he is still alive. After June, 1944, several OKH personnel, such as FRICKE and PIETSCH were transferred to OKW, but he did not come into contact with them, since he worked in Berlin while they were at WUNSTORF. He had never heard of DOEHRING. He knew TRANOW and FRANKE in OKM, but nothing was ever exchanged except unrecyphered Anglo-U.S. codes.

4. OKW Documents.

Their captured codebooks - Brown and Gray code, Swedish diplomatic - all traffic, workings and catalogues were burned at WERFEN at the end of the war. The cryptanalytic aids, such as the Bigrammsuchgerast, Roller, etc., were thrown into the River SALZACH near WERFEN station; this did not include the MENZER material, which had gone with another party, and he did not know what had become of it. He drew the following map, showing where the material was burned or dumped at WERFEN.



No V.N's were thrown into the SALZACH; those from 1922 to 1939 had been deposited in the Chef des Heeres Archive at POTSDAM, HANS-von-SEECKT Strasse 8. The V.N's for 1940-43 were sent to the old Reichs-marineamt at JUETERBORG, Tirpitzufer 38-42. He does not know what became of this material. The V.N.s for the last year were all burnt.

TOP SECRET

Asked about the Schluesselschiebe, he did not know where this might be found, but thought it would have gone with MENZER's material; he was very vague on this subject, and thought that the Schluesselkasten was a box for holding the Schluesselschiebe.

All copies of his own works, including the four copies of his history of OKW were destroyed.

5. OKW Personnel.

VAUCK. 1.75, broad shoulders, fat, fair, blue eyes, round head, no spectacles, divorced with two children, frank and honest. Lived at JUETERBORG. Transferred to WUNSTORF before OKW left Berlin.

MENZER, Fritz. At least 1.85, thin, brown hair brushed back, oval face, sharp chin, sharp well-shaped nose, spectacles, grey-blue eyes, married with two daughters, working as a mechanic in SCHOTAU, nice man, Saxon accent.

SCHAEDEL, Dr. Herbert. Egyptologist in LEIPZIG. Small, very thin, short-sighted with spectacles, reddish hair, fair, reddish grey-green eyes, speaks very good English. At end wanted to return to LEIPZIG, and thence to get a stipendium in Egypt.

WENDLAND. 1.75, broadshoulders, head out of proportion, grey hair beginning to go bald, no spectacles, long-sighted, nose like a duck, philologist in Slav languages. Probably taken by NKVD, wanted to return to Berlin.

PIETSCH. 1.65, corpulent, completely round, dark brown hair, mathematician, brown eyes, completely white unhealthy complexion, no spectacles, very vain.

WEISSER, Franz. 1.70, thin, curly brown hair brushed back, unhealthy white impure skin, no moustache, grey eyes, no spectacles, possibly still an interpreter.

6. British Diplomatic Codes.

From 1922 until the end of the war, 27 British codes passed through their hands, about ten of which were solved - all of these were unreeyphered codes, the contents mainly administrative and not intended to be secret. FENNER was unable to give any of the English names, and said they did not distinguish between traffic from different departments; these unreeyphered codes appeared to have world-wide use, and sometimes came up in India, Africa, etc. The department concerned was indicated by a discriminant, but they never used these to distinguish traffic. The secret messages from the Foreign Office, prefixed Prodrome, were either subtractor or one-time systems, and were never solved. State secrets were never passed on the codes which they read, but they provided interesting background and sometimes helped to fill in their knowledge when there were gaps in the traffic of other countries; they were therefore considered worth while. As examples of interesting intelligence, he quoted reports on various risings in Palestine; also, during the Czech crisis, the British reported in an unreeyphered code that they had not guaranteed the frontiers of Czechoslovakia, and this gave an indication that they were not prepared to go to war over that country. The Services which received these OKW reports professed themselves satisfied, and wished them to continue.

7. American Diplomatic Codes.

The chief American codes solved by OKW were Brown Code, Gray Code, and Strip system. The strip system gave interesting reports from Cairo, gave a clue to the impending Finnish armistice; the American Embassy in Berne sent home a report to the effect that Hitler was arranging for his friends to go to Switzerland, and thus they knew that the end was near. They were particularly interested in U.S. reports on aircraft movements in the Red Sea and the Gulf of Persia, which were mainly sent in unreeyphered

TOP SECRET

code. He remembered eleven American codes during the period 1922-1945, but was not sure how many had been read; the first of these, A5BC1, which had been read in 1922, was obtained from the Austrians.

8. Waprüf 7, VIERLING.

FENNER was very vague on these subjects; he knew that Waprüf 7 was the technical department of the Heereswaffenamt, and was responsible for the development of machinery. KARN of Waprüf 7 had been captured by the Americans in North Africa, and he had received a letter from him from America about six months after the fall of Sicily. He knew LIEBKNECHT vaguely, and that he was responsible for the development of secret telephony. Asked for his opinion on VIERLING, he said that there was a man in Koenigsberg, whose name he could not remember, whom the Waprüf 7 had considered superior to VIERLING on this work. OKW, however, considered VIERLING to be more clever and modern, and owing to this difference of opinion, there was friction between OKW and Waprüf 7. He believed that the Koenigsberg man worked with SIEMENS, while VIERLING belonged to LORENZ.

9. RLM/Forschungsamt.

FENNER had already written of his bad relations with the F.A. Asked about their work, he believed that they had read Bulgarian (transposition systems) and some Polish. He did not think they worked on Jugoslav and knew nothing of their work on American and British. In any case, their work would have been inefficient. He saw some of their reports, and declared them to be sheer phantasy, with the texts of the messages obviously altered to suit their own purposes.

10. Swedish Machine.

OKW had attempted to break the Swedish Hagelin, on the basis of a captured machine, and worked out the period to be 2 or 3 million long. There was a variable which appeared to change with every message, since they never found any repeats, and they came to the conclusion that they could do nothing with the traffic. With twice as many men and twice as many Holleriths, they could still not have had any success, and he thought there was no means of achieving a break unless mistakes were made.

FENNER stated emphatically that OKW/Chi was the only German department interested in machine problems, but from subsequent interrogations it is clear that no great reliance can be placed on this assertion.

11. Hollerith.

OKW had no Hollerith of its own, but made use of a central department in Berlin under the "maschineller Berichter", Major RÖSSOW. In 1944, the Polish traffic was passed to RÖSSOW for analysis. They also sent material to OKH, which had its own Hollerith at JUETERBORG; liaison for this purpose was officially approved, but there was no liaison in the actual decyphering work. He thought that the Forschungsamt probably had Hollerith, but that the Foreign Office had none. He said later that he had only once visited the Hollerith department, and understood nothing of the processes involved; the only machine of which he knew the name was the tabulator. He had never heard of the Italians using Hollerith.

12. Priorities, Interception and T.A.

FENNER said that his group had a completely free hand and they were given no priorities either on the countries on which they worked or on special traffic within those countries. If they knew any particular traffic was of special importance, however, they naturally concentrated on solving it with the greatest possible speed, for example the Polish traffic and the reports of the U.S. Military Attache in Cairo. They were told not

Please turn over

TOP SECRET

to bother about traffic of a purely commercial nature. Nor did their customers - in particular Fronde Heere Ost and West - ever express any preference for particular traffic.

They had insufficient interceptors to take all British traffic, and normally concentrated on London links. When the ban on diplomatic traffic was imposed before D-Day, they therefore found themselves in considerable difficulties, since they were either not in a position to intercept the out-stations, or took a considerable time to pick up their schedules.

He never received TA reports from Group I, although he knew that they were produced. As he explained later, most of their traffic passed on authorised diplomatic links, and it was therefore very rarely that they did not know the source of the traffic; thus the TA reports would have given them little assistance. There was, of course, verbal communication between the two groups on any queries that might arise.

He mentioned that at the beginning of the war, when he was still in the military picture, they had considerable difficulty in intercepting British Army traffic, owing to the low power of most of the stations. He thought that experiments had been made in intercepting this traffic from ships, but was unable to give any details. They had tried D/F'ing stations from aircraft flying over Spain, and he believed that the British had made similar experiments, although they never succeeded in capturing any V.H/F equipment from shot down British planes.

13. OKW/Chi's Greatest Achievement.

The greatest cryptanalytic triumph of OKW was the reading of the London-Warsaw traffic, which gave intelligence of the highest value. The messages were intercepted at LAUF and TREUENBRIETZEN, and they had 16 people engaged on breaking them. Normally, messages which came in during the morning were broken by 1700 hours. In particular, the Poles had an agent working in the Fuehrerhauptquartier, who always sent most accurate reports on the strategic plans of the German High Command. Asked if they were able to take any action as a result of reading these messages, he said that sometimes they were able to change slightly the place or time of an attack, but that usually the reports were of a long-term strategic nature and there was little they could do about them. They never succeeded in tracking down this agent.

When asked to describe the system involved, he spoke of daily-changing key-sheets, but made no mention of a stencil; similarly, efforts to elicit information on the British Stencil Subtractor were unsuccessful.

Second to this in importance, he placed the reading of the Turkish cyphers. The most important intelligence came from the American Cairo traffic, but this was not originally solved by OKW.

14. Captured Machines.

He had seen the Hagelin "kleine Technik", which was probably of Swedish origin. They also had a "grosse Technik", with a keyboard and a battery, which wrote both clear and cypher on strips; he believed that it was a Hagelin of an improved type. There was one vital part missing, and in any case they never received any traffic which they could certainly associate with the machine. He did not even know whether it was British, French or American. (See later interrogation).

People from OKH had come to inspect these machines, also from the A.A., F.A. and probably OKM. He thought that OKH probably had similar machines. They had captured at least ten of the "kleine Technik", but nothing was ever decyphered on them. MENZER had taken the small machine (later he described it as the C36) and had transformed it for use by the Abwehr.

He had never heard of any machine captured at BERGEN or DUNKIRK, nor did he know anything of the Mustang apparatus, although he had once heard the name.

They had asked the Abwehr to organise pinches of Russian cyphers, but nothing ever came of this; he knew BARB, but had heard nothing of his journey to North Africa.

TOP SECRET

THIRD INTERROGATION: 19/9/46.

15. F/L Codes.

At the beginning of the war, they had been asked to make up plain language codes, and they had experimented both with the straight type and with messages which had already been put into cypher before being included in a letter. Their greatest problem was to make them appear natural. LENZER had taken up this problem again in 1944, but they had never found a satisfactory answer. He knew nothing of the use of these systems.

During the 20 years that he had been in OKW/Chi, only about ten letters came to them - from the censorship department - with suspected concealed messages, and during the war about three of these were solved. In each case, the solved message was of a fixed period, e.g. every seventh letter of the text. They were all of French origin and were connected with the Jews. They also received many letters in open cypher of Jewish origin, with a semi-Hebraic alphabet. These were generally simple substitution in Yiddish language, and were easily solved; they were all harmless and did not appear to have any political implications.

16. Cribs.

FENNER was asked to give any examples he could remember of successes from published messages or cribs. He said that a Finnish soldier had once sent a message to ROOSEVELT, which was encoded by the U.S. Embassy at HELSINKI and passed to WASHINGTON. This message was subsequently published in the American press, and helped them in their recovery of code-groups. All sections of OKW/Chi received newspapers from the countries in which they were interested, and these were read both to look for such cribs and for general background. Between the two wars, the French were great culprits, and the work of the French section was often helped in this way. He could not remember any instances of British messages being published.

France, Japan, Rumania and Italy often made mistakes and had to send recypherments of their messages which enabled the decypherers to break into the systems. He also remembered that messages from Berlin to Paris in a solved French code were sometimes passed on to Stockholm in a different code, which they were thus able to solve.

17. Cable Traffic.

FENNER had said previously that Germany was in a particularly favourable position because they were able to intercept a large bulk of trans-continental cable traffic. He reckoned that 30 per cent of their traffic came from this source, and this covered all countries in Europe. The Forschungsamt took photographed copies of all cables passing through Berlin, and copies were passed to OKW. They also received copies from Sofia, Madrid and Budapest, and occasionally from the Abwehr, but he could give no details of the Abwehr organisation for this purpose.

Asked if any attempts had been made to tap submarine cables, he said that the Italians had made experiments in the Mediterranean, using cables running parallel to ROMMEL's North African cable, and thus tried to intercept messages by induction. He had never heard of any success, nor did he know of any similar experiments with Atlantic cables. He thought that OKH might have been interested in this, working in liaison with Wpr Abt 7 and certainly with the Marine.

Please turn over

TOP SECRET

18. Non-morse Traffic.

At the beginning of the war, the Russians had a multi-channel line from BERLIN to MOSCOW, on which they passed encyphered messages; he knew no details, but thought it was known as Multiplex, and said that LIEBKNECHT was the man responsible for this work. He knew of no Secret teleprinter messages other than German. He knew that the Waffenamt had intercepted some kind of Russian messages which came out on a strip, but he knew of no success with such traffic; he thought that KEHLER, the technical expert in Group III, would have told him if any messages had been broken.

19. Physical Penetration.

France had attempted physical penetration of German cyphers about 1931-1933, and they had succeeded in buying German army double transposition keys from a man working in OKW. They knew nothing about this until the documents were found in the Deuxieme Bureau after the fall of France. Except for this, and the information given to the Czechs by a German informer (see above), he knew of no other attempts at physical penetration, and was not aware of any cases of compromise during the war.

20. British Diplomatic.

FENNER denied all knowledge of Inter-departmental cypher, and had not even heard the name; asked if the Foreign Office would have worked on this, he said that if it was a recyphered system, he certainly did not remember the Foreign Office having told him anything about it.

They had no interest in commercial systems, and these were normally not decyphered; nor was he aware that they had ever intercepted any police traffic.

TRODROME messages were originally examined for repeats by hand, without any results; later, when they had Hollerith machinery available, there was too much other work. He could remember nothing about the indicators, but was convinced that all this traffic was one-time. He said that in general they had no time or staff to undertake a serious investigation of British or American subtractor systems.

Asked about traffic prefixed INTER, he remembered the name, but did not know what kind of cypher was involved; if it was a long subtractor system, it was certainly never read.

Asked about the Stencil Subtractor, he wondered if this might be "Blockverfahren"; the Foreign Office had argued as to whether it was solvable, and had come to the conclusion that there was nothing to be done with it; he had never discussed this question with TRANOW.

With reference to Bentley's Code, he knew that it was used by the Chinese in 1929, and they had decyphered this traffic; the British only used it for commercial traffic, and he was unaware that it had ever been used recyphered.

21. Double Transposition.

FENNER said that although double transposition was sometimes readable in theory, he knew of no case in which it had been read during the war. A single message was always unsolvable, but he knew that there was a possibility if the boxes were exact rectangles. He maintained that even single transposition, if used properly with dummies (Blender), could not be read, and he knew that both the Czechs and Hungarians had attempted this without success. Later, he said emphatically that anybody who had broken a double transposition message would have received a medal.

22. Meteorological Traffic.

Only the Luftwaffe, and possibly the Marine, had worked on met. cyphers; he had never seen any traffic, and had never asked about their success.

Please turn over

TOP SECRET

23. Later Italian Cyphers.

FENNER was asked to give details of any success they had had with Impero and Littoria cyphers. He said that they had solved them with half-success. They had solved parts of the subtractor, and recovered some of the relative basic code; there was very little material, and they did not succeed in breaking more than a few of the commoner groups - insufficient to read the messages; he could not say how many messages had been stripped.

24. Russian Traffic.

Russian army 3-figure codes, known as OKK (Obschchij komandir kod) 5, 6, 7 and 8 were read from 1939 to 1941. OKK 5 was captured after they had read it, and they also captured copies of 6, 7 and 8. After the formation of the OKH bureau, all Russian military traffic was dealt with there, and he could not give any details.

Asked about Rote Drei, he said that he had received a large bunch of messages from OKH from VON DER OSTENSACKEN (now dead), who asked him to work on them urgently. No details were given of the source or country concerned. HUETTENHAIN had examined them and had found no Parallelstellen. Later, he returned the traffic to OKH, saying that he could not solve traffic with so little information, and he did not know whether the traffic was ever solved by OKH or whether they found out what it was. Recently, FENNER had met in the camp at OBERURSEL, a Russian named SACHAROW, who had worked in the German General Staff. He had asked him about Rote Drei, and he had said that it was connected with Russian counter-espionage. This SACHAROW had been captured near SALZBURG on 8/5/45, and had written much homework for the Americans. He is still a prisoner at OBERURSEL. (It was thought advisable not to ask FENNER any further questions on this incident). He had never heard of Frau SCHULZE-BOYERN.

Several Russian Agents' systems had been read by VAUCK's section after the capture of the agents; they used a subtractor made up from a keyword. They had a special check which they used if they were captured and played back. He knew no details of their organisation.

He thought that the Forschungsamt might have worked on Russian diplomatic traffic but was sure that the Foreign Office had never done so; as all the traffic was on one-time systems, OKW did not normally intercept it, and all traffic prefixed POLIRED and NARKOMDEL remained unwatched.

25. Czech Agents.

During the war, they only read Czech agents' traffic when the keys had been compromised. They had read about 20 messages in 1943-1944, which were on a Cäsar received from the SD through the Abwehr; he could not remember any details of the system involved. He thought that one of the agents must have been captured, and that the network continued to use the compromised keys. They never intercepted any messages, but received copies and keys with the SD stamp. He remember that one message had given a long list of the names and addresses of Czech agents.

He did not know of any Czech diplomatic traffic intercepted during the war.

26. Jugoslav Diplomatic.

Asked about Jugoslav systems, FENNER gave a short description of the bigram substitution code (see report on interrogation of WENDLAND, who was head of the Jugoslav Section). OKW did not cover TITO or MIHAILOVIC systems, and he thought that these were probably done at OKH.

Please turn over

TOP SECRET

27. Secret Teleprinter Traffic.

FENNER repeated that he knew very little about secret teleprinters. He knew that the German teleprinter cables went through Sweden, and he had heard rumours that the Swedes might be exploiting this traffic; they never received any confirmation of these reports.

28. Investigation of German Enigma.

FENNER said that he was unable to give any details of the investigations carried out on the German Enigma, as these had been handled entirely by HUTTENHAIN's section. He knew that one test took the form of encoding the letter A 50 times (as an agent might do, if he had access to a machine) and examining the resulting cyphered text. Asked why he had written that the Enigma was outmoded, he said that it was too slow for modern use, and they needed a machine which would print the clear and cypher texts automatically; he thought that the Germans had never achieved such a machine. He had never seen the S.G.41, and thought that it had never been used.

29. OKW liaison with Japan.

FENNER has previously said that liaison with Japan was weak, and had spoken only of HAYASHI, although other prisoners had said that he had considerable dealings with the Japanese. He was now asked whether he knew NISHI or SAKURAI. He replied that he knew both of them vaguely, but had very little contact with them. NISHI was at BUDAPEST with HAYASHI; SAKURAI remained in Berlin, but he had seen him only three times. He was then informed that KETTLER had stated, FENNER passed American and other material to these two men. He was very startled, and said that he had helped them with Russian and American traffic, mainly by giving them raw material. Further questions elicited that he had also given them copies of the V.N.s, mainly American and French decodes. KETTLER had ordered him to give them everything they asked for. It was pointed out to him that this hardly conformed with his previous statement that the liaison was very weak. He said that he had meant "spiritually" (geistig) weak, not "practically" weak. Both prisoner and interrogators remained unimpressed by this argument, and FENNER was told to give a written account of the whole episode.

FOURTH INTERROGATION: 30/9/46.

30. General.

FENNER was asked a few questions which had been left in shadow by the interrogation of WENDLAND. He said that the successor of General GARBA in the Italian bureau was MOSCHINI, who had been second in command under GARBA and later became head of the North Italian bureau. This man knew some German, and therefore was used as a liaison officer with OKW.

Asked why he had made no previous mention of Finnish cyphers, FENNER said that there was no political necessity to read either Finnish or Hungarian systems; it was quite otherwise with the Italians. He thought that the Italian bureau had no liaison with the Japanese.

He repeated that OKW had no Hollerith machinery of its own, and that none was available for hire or purchase; the result was that there was a great demand on the central pool, and often he had to wait three or four weeks for the answer to a problem.

31. Fall WICHER.

When he was visiting RUZEK, the head of the Czech bureau, he was instructed not to carry out a detailed interrogation; he had met two young Czechs who worked with RUZEK, but did not remember their names. The

Please turn over

Czechs had never claimed to have read the German Enigma; this was supposed to have been done by the Polish WICHER organisation which was captured in Czechoslovakia, and whose documents were sent to Hauptmann KEHAL of OKH. KEHAL - now in the Russian zone - was on very bad terms with HEINER, and only told him that from these documents it was clear that the Enigma had been broken. HEINER was never able to see the documents himself, and would not like to state it as a fact that the Poles in fact achieved this success. He thought it likely that they might occasionally, under favourable circumstances, have achieved a break - the Germans were under no illusions that this was impossible. Whether whole messages or series of messages were read was quite another matter, and he was never convinced that this had been done.

He was asked whether they had undertaken any measures to improve the security of the Enigma as a result of these suspicions. He said that in the early part of the war, they issued lists of settings to various stations, so as to ensure that no setting or similar setting was ever repeated. He pointed out that if two messages are transmitted with settings AAAA and AAAB, by dragging common words through the text it might be possible to reach some conclusions about the wirings. Here he made a digression by saying that it was particularly important that geographical names, positions, etc. should be specially encoded, so that the reading of an odd message would not give away any vital information; he quoted the case of a Russian army manoeuvre code, which they had broken down in 1930 to the extent of reading messages; however, it provided no important information, since the geographicals were recoded, and they were never able to break this code.

32. Russian Machine.

FENNER said he had never heard of any Russian machine traffic, but thought it conceivable that the Russians used a machine between Moscow and the Army Commands.

33. Polish Cypher Security Section.

Before the war, Polish cyphers developed on very modern lines, and he thought the man responsible for this was called SZCZEZINSKY. He was asked to write up the story of the development of Polish cyphers.

34. OKW Section in Spain.

FENNER himself knew nobody in the Spanish bureau, but during the Civil War a section from OKW, including TRAUE, HEDENSEN and MUELLER, had gone to MADRID to set up an outstation, and they doubtless had instructions to co-operate with the Spaniards. TRAUE - in the American zone - would be able to give details. He knew that they had worked on Russian and Red Spanish traffic, he did not know whether they had attempted anything else. The cyphers in question were primitive field systems, mostly Cäsare, and they would certainly have been solved.

35. Hilfsgeraete.

He said that none of the other bureaux were given the OKW. Hilfsgeraete, except that the Foreign Office had developed the Roller. He thought that probably OKH and the Waffen SS had seen them, but knew nothing of any of the others. He was sure that OKH had its own Hollerith.

36. Knowledge of Machines.

FENNER claimed throughout that his knowledge of Anglo-U.S. machines was confined to the "kleine Technik" and the "grosse Technik", and even so he would not guarantee that either of these were actually used by the Allies. The "kleine Technik" was a Swedish Hagelin type

kleine Technik

TOP SECRET

machine, of which they captured several specimens, and worked out the period to be between two and three million; he said that they believed the Swedes changed the inner key for every message, and they therefore considered it unbreakable. He also spoke of a captured French "kleine Technik", which he later identified as C36; he said he was not aware that any traffic had been identified or broken, but that MENZER had transformed it for use by the Abwehr; he did not know any details. It was only used for French Army traffic, and HUETSCH would be able to give more details. He did not know whether the Americans had ever used the small Hagelin, but knew that in 1943 the U.S. Military Attache in Cairo had gone over to machine, and thought this might be a similar type with modifications; nothing could be done with this traffic.

The "grosse Technik" was also captured; this was a larger type of Hagelin, which in addition to the ordinary wheels had a large driving drum which caused a second motion in the course of encyphorment. It had an electric battery. He did not know where or when it was captured, or whether it was French, British or American. A vital wheel was missing, and so they could not have achieved anything even if they had had any traffic. He did not remember ever having seen any British machine traffic. Asked further about the "grosse Technik", he said that it had 8 or 10 wheels and the driving "Reiter" (he was presumably referring to the B 211). Nothing could be done with such a machine with current analytical machinery, and certainly mechanical aids would be necessary. He laughed when asked if they had tried to develop aids for such a problem, and said that it was much too difficult and was the great problem of the future. The job was too long and complicated and was laid aside.

He spoke of the KRYHA machine, which was built by the Russians, and was never used; it had a period of only 482, which was quite insufficient for modern requirements.

He then spoke of two Czech machines which he had been shown by RUZEK: they resembled a typewriter, and had a pneumatic keyboard; when one pressed a key, the machinery was moved by pneumatic pressure, and a different letter was printed on the paper. It had a fixed period (starre Teriod) and no variable; it also made many mistakes in encypherment. RUZEK told him that it had never been used and was only in an experimental stage. He was asked to give a written description.

In this connection, he said that about 15 years ago he had been told that the British had a machine which was probably of this pneumatic type; he knew nothing about it; and had seen nothing in the papers about it. He repeated that he knew nothing of any British machine traffic.

He had heard of the OLIVETTI teleprinter, but had never seen it and could not describe it; he thought it was "not yet ripe". He believed the Italians had later shown it to the U.S. Navy.

The Swiss used the so-called commercial Enigma, of which OKW obtained several examples; later it was modified by the Swiss, and the wiring was changed. He said that the Foreign Office worked on it, he did not know with what success. MENZER and HUETTENHAIN had helped them, but with no results. (See next interrogation).

Asked about the German Enigma, he described the machine in general terms, and said that it had 13 possible Steckerpaare. At the beginning of the war, only three pairs were steckered; if a message were sent recyphered on the same key but with different stecker, only those six letters would be affected, and MENZER showed that it would be possible to work out by Hollerith the stecker key, and thus begin to work on the basic machine. The great weakness of the Enigma was that the lefthand wheel never moved; asked why this was a weakness, he said that sometimes only one wheel would move for a period of several letters, and with a crib this might enable the wheel positions to be worked out. One of MENZER's greatest achievements was the discovery of this original stecker weakness, and the consequent increase in the number of stecker pairs to 6 or 7. He was asked to write a description of this investigation, and any practical application to the traffic of other countries.

Please turn over

TOP SECRET

'37. VAUCK's Section.

VAUCK never had to deal with any American agents' systems, but British agents sometimes came up in the Balkans in connection with MIHAILOVIC. He never saw this section at work, and does not know what these messages looked like. He knew that there was never sufficient material to break the keys, and they were only read after the agents had been captured; he believed that traffic was occasionally read currently after the key had been compromised by one of the agents without the knowledge of the others. He was unable to give any names or specific examples. In the West, all British agent traffic was in French language, and he thought that they were normally French-Canadian based in London. All those captured were French, and they never took any British or Americans. Two or three times, they were able to play these French agents back after they had been captured. He thought the system employed was some kind of book cypher with subtractor; TRAUE would be able to give more details. Also Dr. KEINER worked under VAUCK, and might now be in Berlin, where before the war he had been employed in the Pergamentmuseum. He said that no special secrecy was attached to the work of particular sections inside the organisation.

At the end, VAUCK had about 12 men, originally he had had more; when OKH heard that he was to be transferred to OKW, they took the opportunity of stealing several of his people. VAUCK was a very nice, honest man, and was not a Nazi.

38. BOETZEL's Interrogation.

FENNER recalled that at the end of May, 1945, in Brunswick, he had met Oberst BOETZEL, who was head of OKW/Chi until the beginning of the war. BOETZEL told him that he had been captured and interrogated by a British Lt. Col. GREEN, and an American officer, whose name he did not know. "It was all very honourable". He was then set free, and FENNER has not heard of him since.

FIFTH INTERROGATION: 2/10/46.

39. Japanese Machine.

FENNER was asked whether he could describe their work with the Japanese "Schiebe". He appeared genuinely surprised and said that he had never heard of it; nor did he recognise the indicators CIFOL VEVAZ. When told that HUETTENHAIN had spoken of the solution of this machine, he said that surely there must have been a misunderstanding, and HUETTENHAIN must have been speaking of the diplomatic transposition cypher. He firmly denied all knowledge of the existence of such a machine, let alone the solution.

40. Swiss Enigma.

It was decided to try FENNER's reactions on several points of HUETTENHAIN's work, where he had previously denied any success, and he was told that HUETTENHAIN claimed to have worked with success on the Swiss Enigma in conjunction with the Foreign Office. FENNER said that the Foreign Office had solved the Swiss Enigma about 1941-1942 - they had been informed of this by KUNZ or LANGLOTZ. When the machine was modified, they were no longer able to solve it, and they called in HUETTENHAIN to help; he too failed to achieve any results, and the machine remained unsolved. FENNER was asked why he had previously denied any knowledge of success; he replied that he had meant that the modified machine was not broken, and that OKW never had any success with this traffic.

In connection with LANGLOTZ, FENNER was asked if he had heard reports of his death; he said that he would be very surprised to hear it, but that ASCHKE would be the man to know for certain.

Please turn over

TOP SECRET

41. French Hagelin.

He was asked again if he had not heard of successes with the French C36, and said that he certainly knew of no work done on it at OKW, beyond LENZER's examination and modification for use by the Abwehr. He was quite sure that OKW had never identified any traffic on this machine. Theoretical work, yes; a few old messages solved, perhaps; current solution, never. In Spring, 1940, he had sent some people to OKH to help them with their work on this machine; he did not know whether HUETTENHAIN took part in that work. If C36 was ever solved, it must have been done by OKH and without his knowledge.

42. M.209.

He again insisted that he did not believe the American "kleine Technik" had ever been solved, or that they had ever recognised any traffic being passed on it; they only suspected that the Americans might be using such a machine. He would certainly have known, since the V.N.s were always marked with the system involved, and none of them were ever marked "machine".

43. Croat and Hungarian Machine.

He had never heard of the Croats or Hungarians using any kind of machine, and felt sure that HUETTENHAIN had never worked on such traffic.

44. HUETTENHAIN and OKH.

FENNER had written a long appreciation of HUETTENHAIN and had stressed their good relations; he was asked whether he would have been told of all HUETTENHAIN's work and successes. He replied that HUETTENHAIN was a particularly upright and honest man, and would certainly always tell the truth; he found it hard to believe that he would have hidden any of his knowledge; on the other hand, if HUETTENHAIN had said that something was so, there could be no doubt that he was telling the truth. HUETTENHAIN had had much more contact with other departments than he himself, and had often been shown solutions or partial solutions quite unconnected with the work of OKW. Often, OKH had claimed to have the solution of a system, but on examination it was found that they had only achieved a small measure of success without actually reading any messages. OKH certainly had a machine section with Hollerith at JUTERBORG which had moved to BODENBACH at the end of the war; he thought that NASSOW's "maschinelle Berichterstattung" had also gone there; he had maintained a courier service with NASSOW until the very end. He repeated in this connection that he had never heard of a Foreign Office Hollerith department, and was under the impression that KRUG also used NASSOW's machines.

45. British Machine Traffic.

He was asked if he had heard that OKH succeeded in reading a few British machine messages in 1942; he said that HUETTENHAIN had never told him anything about this. He had never heard of a British machine, nor did he think that any such traffic had ever been examined by OKW. The only possibility was that the "grosse Technik" might conceivably have been of British origin, but he did not know.

46. BERGEN Material.

He was asked what British material was captured after the fall of Norway; he replied that he had never heard of any, and thought that anything captured would have gone to the Marine. It was possible that the big British Government Code might have come from there, but he was not certain. He had never heard of any material being captured at DUNKIRK. He was asked if NOHEN would know details of such material; he replied that he would certainly know about the actual material but would not know the

Please turn over

source, since OKW was never informed of the source of captured documents. In this connection, he said that ROHEN was a good and scientific worker, who never made mistakes; he was slow, but experienced.

47. Documents from Italy.

In Autumn 1943, RAFFEL had gone to Italy to see if he could obtain any useful material from the Italians; he got a large chest full of code-books, but theywere all old, and of no use ot OKW. With the exception of the Foreign Office, they never sent captured material to any other department.

48. General Conclusions.

FENNER appears generally to give more information in written homework than under interrogation, and is providing written answers on a large number of questions. During the interrogations, it seemed likely that he mistook the British representative for a Russian, and it was clear that he disliked the Russians. This impression was subsequently confirmed by remarks which he made to the American representative. It is not known how far this may have affected the truthfulness of some of his replies, and he is being given further written work under the impression that it will be for the information of the American representative only.